PLATE 99.

- Glyceria acutiflora, lodicules, united into one; ovary, and base of palet; July 2nd, 6 A. M.
- Glyceria grandis, united lodicules, ovary, styles, and base of curious stigmas; July 15th, 5 A. M.
- Glyceria canadensis, ovary, lodicules and base of palet; July 6th, 7 A. M.
- Glyceria pallida, lodicules, ovary and base of palet; July 7th, 4 P. M. Danthonia spicata, lodicules, ovary and base of palet; July 2nd, 10 A. M.
- The same, side view.
- Distichlis spicata; staminate flower; lodicules, base of palet and of the 3 filaments. Aug. 14th (hour not recorded).
- 8. Andropogon furcatus, base of palet, and lodicules embracing the ovary, viewed from above; Aug. 14th, 9 A. M.
- 9. Andropogon furcatus, lodicules, and ovary viewed from the rear or paletside;
- 10, 11, and 12. Panicum capillare, ovary, lodicules and palet, from different points of view; 10 to 11 A. M.

NOMENCLATORIAL CHANGES REQUIRED BY SOME GRAMINEAE OF THE SEVENTH EDITION OF GRAY'S MANUAL.

(Continued from page 173.)

F. TRACY HUBBARD.

PANICUM SCRIBNERIANUM Nash.

Section V, Canon 16, upholds this name when the American Code is followed, but according to Sect. 7, Art. 50 of the "Vienna Code" P. macrocarpon Le Conte in Torr. Cat. Pl. N. Y. 91 (1819) which equals P. latifolium L. Sp. Pl. 58 (1753) [Cf. Hitchc. & Chase Contr. Nat. Herb. 15:314 (1910)] does not render invalid P. macrocarpon Torr. Fl. No. & Mid. U. S. 143 (1824), which is the oldest name of the species [cf. Hitchc. & Chase l. c. 283 (1910)]. Consequently P. Scribnerianum Nash becomes P. macrocarpon Torr.

Panicum Macrocarpon Torr. Fl. No. & Mid. U. S. 143 (1824) not Le Conte l. c. (1819). Synonymy in part. P. Scribnerianum Nash Bull. Torr. Bot. Cl. 22:421 (1895); Hitchc. in Gray Man. ed. 7, 115 (1908); Hitchc. & Chase Contr. Nat. Herb. 15:283 (1910).

For complete synonymy cf. Hitchc. & Chase l. c.

TRIDENS R. & S.

The genus Tridens of Roemer and Schultes [Syst. Veg. 2:34, 599 (1817)] in its commonly accepted sense is antedated by Tricuspis Beauv. Agrost. 77, t. 15, fig. 10 (1812). The generic description of Tricuspis is fairly good and its identity is unquestionable. It is commonly cited as a synonym of Tridens [in fact it is given as a synonym by Roemer and Schultes l. c. 34] when that genus is separated from Triodia R. Br. According to the American Code Tricuspis Beauv. is untenable on account of the older Tricuspis Pers. Syn. 2:9 (1807), but by Sect. 7, Art. 50 of the "Vienna Code" Tricuspis Pers. which equals Crinodendron Molina, Saggio Chile 179 (1782) [a genus of Elaeocarpaceae] does not invalidate Tricuspis Beauv.

Beauvois after describing his genus cites Poa coerulescens Mich. [should be Michx.] and gives his combination Tricuspis Novaeborocensis Nob. without description. According to Ind. Kew. 2 pt. 1, 571 (1895) Poa coerulescens Michx. ex Kunth is described in Kunth Enum. Pl. 1:319 (1833) in syn., but it also occurs in synonymy in Kunth Rev. Gram. 1:108 (1829); in both cases under Uralepis cuprea Kunth. In Rev. Gram. there is a plate (t. 68) which agrees very fairly with Beauvois' illustration.

Kunth in Enum. Pl. 1:319 (1833) among other synonyms of his Uralepis cuprea cites Poa coerulescens Michx. [upon which Beauvois bases his genus Tricuspis]; P. seslerioides Michx. Fl. Bor. Am. 1:68 (1803); P. quinquefida Pursh Fl. 1:81 (1814); Triodea cuprea Jacq. Eclog. Gram. 2:21, t. 16 (1814) and Tricupis noveboracensis Beauv. Agrost. 77 (1812) with a question mark.

Triodia cuprea Jacq. is the name used for the first species of Triodia by Watson & Coulter in Gray Man. ed. 6, 657 (1890) while in the first edition we find Prof. Gray using Tricuspis seslerioides Torr. with the following synonyms: Poa flava L., P. seslerioides Michx., P. quinquefida Pursh and Windsoria poaeformis Nutt. Tricuspis seslerioides is given as a synonym of Triodia cuprea Jacq. in edition six and this in turn is shown to be a synonym of Tridens flavus (L.) Hitchc. Rhodora 8:210 (1906). This is the first species under Tridens in Gray Man. ed. 7, 149 (1908).

This chain of equivalents shows conclusively that the type species of *Tricuspis* Beauv. is unquestionably the same as *Tridens flavus* (L.) Hitchc. and consequently the older *Tricuspis* Beauv. (1812) replaces *Tridens* R. & S. (1817).

Tricuspis Beauv. Agrost. 77, t. 15, fig. 10 (1810); Gray Man. 589 (1848) in part, excl. § 2 Triplasis. Tridens R. & S. Syst. Veg. 2: 34, 599 (1817); Hitchc. in Gray Man. ed. 7, 149 (1908). Windsoria Nutt. Gen. No. Am. Pl. 1:70 (1818). Triodia R. Br. § 1 as used by Watson & Coulter in Gray Man. ed. 6, 657 (1890).

Tricuspis flava (L.) comb. nov. Synonymy in part: Poa flava L. Sp. Pl. 68 (1753). P. seslerioides Michx. Fl. Bor. Am. 1:68 (1803). Tricuspis novaeborocensis Beauv. Agrost. 77, t. 15, fig. 10 (1812). Poa quinquefida Pursh Fl. 1:81 (1814). Triodia cuprea Jacq. Eclog. Gram. 2:21, t. 16 (1814); Watson & Coulter in Gray Man. ed. 6, 657 (1890). Tridens quinquefida R. & S. Syst. Veg. 2:599 (1817). Tricuspis seslerioides Torr. Fl. No. & Mid. U. S. 118 (1824); Gray Man. 589 (1848). Tridens flavus (L.) Hitchc. Rhodora 8:210 (1906); Hitchc. in Gray Man. ed. 7, 149, fig. 146 (1908).

TRICUSPIS STRICTA (Nutt.) Gray in Proc. Acad. Sci. Phila. 1862: 335 (1863). Synonymy in part: Windsoria stricta Nutt. in Trans. Am. Phil. Soc. 5: 147 (1837). Triodia stricta Benth ex Vasey Ill. No. Am. Grasses, 1 pt. 2, t. 38 (1891). Tridens strictus (Nutt.) Nash in Small Fl. So. E. U. S. 143, 1327 (1903); Hitchc. in Gray Man. ed. 7, 149 (1908).

GLYCERIA TORREYANA (Spreng.) Hitchc.

Since the preparation of his manuscript for the seventh edition of Gray's Manual Prof. Hitchcock has been abroad and has made extensive studies of the types of American grasses. This has thrown new light on a number of species and has made the change of certain names necessary. G. Torreyana (Spreng.) Hitchc. is an instance of this. A study of the type specimen of Panicum melicarium Michx. Fl. Bor. Am. 1:50 (1803) has shown it to be what has commonly been known as G. elongata Trin. in Mem. Acad. St. Petersb., ser. 6, 4 pt. 2, 58 (1836) [cf. Hitchc. Contr. Nat. Herb. 12:149 (1908)]. G. elongata Trin. has been reduced to a synonym of G. Torreyana (Spreng.) Hitchc. in Rhodora 8:211 (1906). Consequently as Michaux's name is the oldest we must accept it for our species.

GLYCERIA **melicaria** (Michx.) comb. nov. Synonymy in part: Panicum melicarium Michx. Fl. Bor. Am. 1:50 (1803). Poa Torreyana Spreng. Neue Entdeck. 2:104 (1821). Poa elongata Torr. ex Spreng. l. c. 104 (1821) in syn. G. elongata (Torr.) Trin. in Mem. Acad.

St. Petersb., ser. 6, 4 pt. 2 (Gram. Suppl.) 58 (1836); Gray Man. 593 (1848); Watson & Coulter in ed. 6, 667 (1890). Panicularia elongata (Torr.) Ktze. Rev. Gen. 2:783 (1891). Glyceria Torreyana (Spreng.) Hitchc. Rhodora 8:211 (1906); Hitchc. in Gray Man. ed. 7, 158 (1908). Panicularia melicaria (Michx.) Hitchc. Contr. Nat. Herb. 12:149 (1908).

Hystrix Moench.

Unfortunately the generic name was changed from Asprella Willd. of the sixth edition of the Manual to Hystrix Moench in the seventh. While Willdenow was not the oldest authority for the name Asprella or Asperella, as it should be spelled, his genus stood for the same plants as the older Asperella Humb. in Roem. & Usteri Mag. 7:5 (1791). According to the American Code Asperella Humb. is invalidated by the older Asprella Schreb. in L. Gen. Pl. ed. 8, 1:45 (1789). Asprella Schreb., however, equals Homalocenchrus Mieg. in Act. Helv. Phys-Math. 4:307 (1760) which in turn is a synonym of Leersia Sw. Prodr. 21 (1788). Leersia Sw. is one of Harms' list of nomina conservanda. Consequently Asprella Schreb. does not invalidate Asperella Hubm. (Sect. 7, Art. 50 of the "Vienna Code.").

Humboldt goes into a lengthy discussion of Elymus hystrix L. Syst. Pl. ed. Reich. 1:234 (1779) which is the same as E. hystrix L. Sp. Pl. 560 (1753) and points out wherein this species differs from the genus Elymus L. He forms his genus correctly and gives a species A. hystrix basing it on Elymus hystrix L. Syst. Pl. ed. Reich. 1:234 (1779). Furthermore he refers to the older Asprella Schreb. and states that Schreber informs him that his (Schreber's) genus is a synonym of Homalocenchrus Mieg.

Asperella Humb. in Roem. & Usteri Mag. 7:5 (1790) not Schreb. l. c. (1789). Hystrix Moench Meth. 294 (1794); Hitchc. in Gray Man. ed. 7, 170 (1908). Asprella Willd. Enum. Pl. Hort. Berol. 132 (1809); Watson & Coulter in Gray Man. ed. 6, 674 (1890). Gymnostichum Schreb. Beschr. Gräs. 3:127, t. 47 (1810); Gray Man. ed. 2, 571 (1856); ed. 5, 639 (1867). Elymus & Gymnostichum Gray Man. 604 (1848). ? Stenostachys Turcz. in Bull. Soc. Natural. Mosc. 35 pt. 2, 330 (1862).

ASPERELLA HYSTRIX (L.) Humb. in Roem & Usteri Mag. 7:5 (1790). Synonymy in part: Elymus hystrix L. Sp. Pl. 560 (1753);

Gray Man. 604 (1848). Hystrix patula Moench Meth. 294 (1794); Hitchc. in Gray Man. ed. 7, 170 (1908). Asprella Hystrix Willd. Enum. Pl. Hort. Berol. 132 (1809); Watson & Coulter in Gray Man. ed. 6, 674 (1890). Gymnostichum Hystrix Schreb. Beschr. Gräs. 3:127, t. 47 (1810); Gray Man. ed. 2, 571 (1856); ed. 5, 639 (1867). Hystrix Hystrix Millsp. Fl. W. Va. 474 (1892); Nash in Britt. Man. ed. 3, 158 (1907).

CAMBRIDGE, MASSACHUSETTS.

THE INLAND VARIETY OF SPIRAEA TOMENTOSA.

M. L. FERNALD.

In looking over a package of plants from Wisconsin I was recently impressed with the aspect of a specimen labeled Spiraea tomentosa L. In the almost simple and somewhat remote branches of its inflorescence it contrasted with the common form of the species in the Atlantic States, where the branches of the inflorescence are mostly compound, bearing the flowers often in small glomerules so closely crowded as to give the whole thyrsus a very dense appearance. Examination of all the material at hand showed that generally on the Coastal Plain and in the Atlantic States Spiraea tomentosa agrees in having the branches of the panicle densely flowered so that it is difficult to see distinctly the individual pedicels; while the material from the Appalachian Mountain system (West Virginia, North Carolina and South Carolina) as well as that from Wisconsin and Minnesota and a single sheet from southeastern Virginia agree in having the flowers less crowded so that the pedicels are distinctly visible and, though in very young material it is naturally difficult to make out this character, it is readily determined in all flowering and fruiting specimens. Another character seems to accompany that of the inflorescence. In all the fruiting material from the Coastal Plain and from the lower levels of the coastal States the follicles are so densely lanate that only in old or weather-beaten specimens can the surfaces of the follicles be seen; but in all the fruiting specimens of the more inland plant, even in inflorescences with the lowest branches still in anthesis, the com-